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Introduction

The problem of the origin of music cannot be taken as a question of absolute beginnings. It is a matter of finding out, historically, the first known existence of music and studying systematically the conditions basic to the manifestations of music.

A comparative examination of historical and systematic evidence affords a natural and logical if not a strictly scientific solution to a problem, which like many other problems of origins, does not lend itself to a definite answer.

This article will deal, (with the available evidence from Vedas, Scriptures in Music and texts) on the origin and development of Music.

Can you imagine a world without sound? Sarangadeva in his'*Sangita Ratnakara*' said that the world is dependent on sound. He arrives at this logical conclusion by stating that *nada* or sound gave rise to *varna* or articulated sound which in its turn, gave rise to words and words created language. And the entire activity of the world is through language. Hence, the world is dependent on sound.

According to our ancient scriptures, the two main divisions of sound are *ahatha* and *anahatha*. *Ahatha* is the sound that is heard and *anahatha* is the sound that is not heard. A sound which is not heard? Yes. Our ancient grammarians and philosophers have described *anahatha* as the sound which has a finer form prior to its being audible. *Anahatha*, they say, is the pure sound which is the material cause of the Universe. The poet[2] is only echoing them when he says "Heard melodies are sweet but those unheard are sweeter". Narada in his *Sangita Makharanda*[3] says "Sages, saints and even *devas*, having controlled their mind and concentrated on the *anahatha*, get the rest they require and attain salvation".

The ultrasonics[4] that we hear about in science are perhaps the nearest examples, which can give us an idea about the sound that exists without being heard.

Ahatha the sound that is heard, created the entire music of the world, through the medium of notes. Like any other form of art, the music of the world owes its origin to nature. Music was in nature, long prior to man-made music, like the brilliant colours of flowers and feathers were there long before the art of painting.

All sounds that are produced on this earth have a definite pitch. In musical sounds the pitch is clear and perceptible. But in other sounds the pitch is not so easily perceptible. Without natural music, man-made music would not have come into existence at all. Man's instinct has always been to imitate or conquer nature. It is because of this endless struggle that several inventions and innovations in various realms of knowledge have taken place.

Talking about the origin of music it would be interesting to quote Anton Ehrenzweig one of the celebrated phoneticians here. He said, "It is not unreasonable to speculate that speech and music should have descended from a common origin in a primitive language which was neither speaking nor singing, but something of both. Later this primeval language would have split into two different branches; music would have retained its articulation mainly by pitch or scale and duration or rhythm, while language chose its articulation mainly by tone colour or vowels and consonants."[5]

Music of the world according to our ancient texts is traced from *archika*.. single note, *gathika*... double note..*samika* triple note, *svaranthara*..four notes, *oudava,* five notes..*shadava,* ..six notes and *sampurna*.. all the seven notes. Music of the world did pass through all the seven stages.

Tracing the history of music we can presume that organised music of the world was confined within four notes. The Vedic chant of ancient India contained three notes *udatta, anudatta* and *svarita* with an occasional effort to a fourth.

The European system of music owes its origin to the Greeks. The very word music was borrowed from Greek. The Lyre is one of the oldest instruments. Orpheus of Greek mythology, is famed for having played the lyre to enchant both mortals and immortals alike. This simple instrument is unfretted, having four strings and hence restricted to four notes only.[6] The words written to accompany the lyre, known as lyrics, were also composed to four notes.

Music of the world, at this stage, was an art that had essentially a spiritual basis; regarded as a means of approach to the ultimate reality whose knowledge is bliss. Indian scriptures refer to this as *marga* music. *Marga* means path, but in this context it means, that which is classical.[7]

From this stage, the full fledged seven-note scale might have been arrived at by reciting or playing the notes with different *adhara sruti* or tonic notes.

Let us take Vedic recitation for example. Taking the notes as *ni sa* and *ri* if the same recitation is recited or played from *madhyama sruti* the resultant notes are *ga ,ma* and *pa* (*sadharana gandhara, suddha, madhyama* and *panchama*) which are the thirds of *ni sa ri.* If the same notes are played or recited from *panchama sruti* the notes resulting are *ma, pa* and *dha* (*suddha madhyamam, panchamam* and *Chatrusru ti dhaivatam*) which are the fifths of *ni Sa ri.* Thus the resultant notes from *madhyama Sruti* and *panchama sruti* are concordants or *samvadis* of the basic *ni sa ri.* When you put together these notes, the resultant scale will have apart from *shadjama* and *panchama, chatussruti rishabham, sadharana gandharam, suddha madhyamam, chatussruti dhaivatam* and *kaisiki nishadam.* This is the *kharaharapria raga.*

So it is not without reason to presume that the seven notes might have been arrived at accidentally, through harmony. Let us assume one group reciting Veda at a particular *sruti.* Suppose they are joined by another group reciting the same verses but (accidentally) in *madhyama sruti*; the resultant harmony, which should have been so pleasing to them should have attracted them to probe into the notes that have produced this effect. After the notes are separated, it would have been an easy task for them to complete an octave and arrive at the basic scale.

The same would have been the case with the oldest Greek scale "The Greater Perfect System". Like all other Greek scales this is a descending scale starting from the note a′. The basis of this scale is the tetrachord (four strings, presumable of lyre) of a succession of four descending notes forming a two octave descending scale from a′ to B with the addition of low A.

a′ g′ f′ e′ d′ c′ b a g f e d c B A.

Now that the seven notes of an octave were achieved, the search for the new scales began. The Universal method known as Modal Shift of Tonic or *graha bheda* was employed. In this process the basic note of an octave is shifted to another note and an octave is completed with the new note as the basic one. From the redistributions of note intervals, new scales emerge.

After the four-note stage, the music of our world came to be known as *desi sangitam. Desi* or *ethnic* music, varied from *desa* to *desa* or region to region, depending upon the taste of the people there.

Indian Music exploited modal shift of tonic to the maximum and today Indian music has the richest variety of scales. European system of music stopped with limited application of this process, since it developed on the lines of harmony.

While melody is a sequence of single notes which produce musical phrases, song or tune, harmony is the sounding of two or more notes simultaneously which pleases the ear. The notes which produce this effect are known as concordant notes. In Indian music *vadi swaras* in combination with *samvadi swaras* produce harmony. The *tribhinna gamaka* is an example of harmony.

Panini, one of the greatest Vedic grammerians, in his *siksha* describes Vedic *swaras* as :-

> *Udatto Nishada Gandharou*
> *Anudatta Rishabha Dhaivatou*
> *Svarita Prabhuvahyethe Shadjama Madhyama Panchamaha:*

This is an obvious definition of fifths among the seven notes. *"Svarita prabhavyahethe shadjama, madhyama, panchama"* gives the clue for the birth of seven notes from the Vedic *saGika* referred to earlier in this article. *Svarita* is usually referred to as the basic note for Vedic recitation.[8]

In European music, harmony is offered openly, ready blended. But in Indian music harmony comes concealed, to be discovered and realised by the listener. While the first set of notes that are sounded still resound in the mind's chamber the second phrase of notes flows in, to complement the first ones in a perfect harmony. There are ample examples that could be offered in support of this theory. Most of the Thyagaraja *kirtanas,* which have successfully stood the test of time are very good examples. The harmonic and contrapuntal devices used are so consistent that they cannot be brushed aside as freaks. The late Umayalpuram brothers Krishna Bhagavathar and Sundara Bhagavathar, inspite of their extensive knowledge of *swara* singing and *niraval* used to sing only Thyagaraja (their *guru's*) *kirtanas* without *alapana, swara kalpana* or their own embellishments or the so-called improvements. The purpose behind this should have been to keep intact the tradition involved in these *kirtanas*, and hand them down to the next generation. Again the established *paddati* or tradition of singing the first *"sangati"* of the *kirtana* before the start of *anupallavi* strengthens this view on harmony. Certain established *sancharas* in *ragas* will also illustrate this theory. The following are only a few examples:

Pallavi of Chakkani Rajamargamu:
/; ; ; R g R S......
Anupallavi of Chakkani Rajamargamu:
/'; ; ; D n D P...... (Fifths of first set)

Pallavi of Tolinenu (Kokiladhwani):
; ; ; s R, G, m/D ; ;
Anupallavi swaras
; ; ; m N, D, d/S; ; (concordancts)

The last phrases of *muktayiswaram* in *Bhairavi Varnam* (*Viribhoni*)

Ṡ ; ; N D P Second set is the perfect fifths of first,
P ; ; M G R Third set perfect concordants of the
S ; ; R Ṇ Ḍ second.

The popular phrase in *Bhairavi alapana*
G ; ; r (S mGm r) (Fifths)
N ; ; d (M sNs d)
G ; ; r (S mGm r)

Dharbari; N S R G ; ; ; ; ; ; ; ; ;
G M P D ; ; ; ; ; ; ; ; ;
N S R G ; ; ; ; ; ; ; ; ;m r s D ; ; ;
n m p G ; ; ;
m r s D ; ; ; ; ; ; N ; ; ; R ; ; ;
S ; ; ; ; ; ; ;

Lu-Tsu-Chun-Chiu, the oldest book on Chinese music written around 3rd century B.C., contains details about the Chinese system of fifths. By the same time the Greek music was getting organised under the Pythogorean system of music devised by the father of Greek music, Pythagoras. The reference to harmony in the Vedas probably can be treated as the earliest. The ancient scale of Chinese music which dates back to 2697 B.C., when Emperor Huang Ti ruled China is essentially *Audava* or Pentatonic. Later on during the end of the 12th century, under the Chou dynasty, two more notes were added to complete the seven notes of an octave namely, *Huan-Chung, Tai-Tsu, Ku-Hsi, Chung-Lu, Lin-Chung Nan-Lu* and *Ying-Chung.*

The scales that are used by various systems of music sound entirely different from each other because of the differences in the approach and the texture of the musical instruments. Structure of the musical instruments varied from country to country due to the availability of new materials. Listening habits and environmental conditions for music concerts varied according to the climatic conditions of the respective country. In a South Indian temple procession *nageswaram* concerts start late in the night and continue till the early hours of next morning. The artistes including the percussionists stand and perform and the audience listens to them for hours together, standing. The South Indian climate permits such an environment for listening while in the Western countries music concerts are mostly confined to concert halls and theatres. Probably this is one of the reasons why Indian music does not have bass instruments compared to its western counterpart. The "*Thimiri nayanam*" is a high pitched, loud instrument which could be heard distinctly from a long distance. The *veenas* played in concerts, upto three decades ago, were tuned in the range of G to B with high tension strings. The male vocalists sang at a pitch (basic pitch) of F and even G! The voice culture which contained practice of *akara gamakas* etc. were all done at the peak volume, keeping in view the distance between the listener in the last row and the performer himself. The modulations were proportionate to the initial volume taken-something comparable to the stage whisper. It should not be mistaken that volume and audibility are the only criteria of this process. A certain amount of depth is achieved by this technique which is quite essential for Indian music. Now a days electronics are played a great role in improving the tonal qualities of the instruments.

It is well known that folk music of the different parts of the world sound similar and were also responsible for the development of modern music.

Rhythm forms an inseparable part of life not to speak of music. Human beings develop a sense of rhythm more by instinct than by cultivation. Primitive music which is essentially rhythm-oriented, can mysteriously awaken instincts, more elemental than those appealed to by any other form of primitive art. Rhythm instruments were also used for communication at the early stages; a language was developed on rhythm. Early rhythm instruments did not have a perceptible pitch. But, in the later stages, rhythm instruments were constructed in such a way as to give a definite pitch. We have an endless variety of rhythm instruments in the world. They vary from a simple tonal stick to sophisticated well developed rhythm instruments of today. Rhythm is a unit measure of time; it cannot be different in different systems of music.

But the development of rhythm in Indian music is phenominal. For an Indian percussionist, the field of *laya* offers wide scope for improvisation... from simple arithmetic to complicated higher mathematics!

While the early scriptural music of the world followed rigid rules of *lakshana*, the *desi* or ethnic music depended upon the religious historic and geographical backgrounds. *Desi* or ethnic music adjusted itself from country to country to suit the tastes of the people there.

The musical systems of the world were all developed from the same methods and materials, whether it is

Sa Ri Ga Ma Pa Da Ni or
Do re me fa so la ti or
Huan-chung, Tai-tsu, Ku-Hsi, Chung-lu, Lin-ching, Nan-lu, Ying-chung....

They are one and the same; it is only the super-structure of these systems that vary and diverge to conceal the truth about the universality of music.

REFERENCES

1. Sarangadeva, *Sangeeta Ratnakara,* Chapter 2, Sloka 2.
2. John Keats, *English poet.*
3. Narada in his Sangitamakharanda said:
   "*Anahatho Hathaschaiva sa Nado dvividho mathaha*"
   "*Akasa Sambhavo Nado yaha sonahatha sangyathaha*"
   "*Thasmin Anahathe Nade Viramam prapya Devathaha;*
   Yoginopi Mahathmanastha Danahatha Sangnyake
   Mano nikshipya Samyanthi Muktim Prayathamanasaha".
4. Ultrasonic is a sound which is beyond human audibility since its frequency range is more than 20,000, vibrations per second.
5. B. Chaitanya Deva, *Psycho Acoustics of Music and Speech* (Psychoanalysis of Artistic Vision & Hearing-Anton Ehrenzweig)
6. "The early Greek lyre had four strings and was confined to four notes only Herbert Spencer *Origin and Function of Music.*
7. The word *Marga* is derived from *Mryg* meaning "to seek or search after" but in this context it means "that which is classical"—Kunhi Rajah's commentary on "Sangita-ratnakara".
8. P. Sambamoorthy, *History of Indian Music.*
9. "Harmony in Western music is comparatively of a recent origin. It was only around 15th & 16th century, it got organised under Monteverdi. It is an accepted fact that the orientals tried harmony, exhausted it and finally discarded it." But the Author's theory is that the Orientals have not discarded harmony—far from it. They have evolved a superior sophisticated type of harmony which had thrown into the background the ready blended, open type harmony.
   .... "It should be equally known that India's instrumental music possesses a number of harmonic and contrapuntal devices which no good player fails to demonstrate after the main theme is fully established. Therefore, the difference between European music and Indian music is not a matter of melody versus harmony but one of emphasis. *The Story of Indian Music,* by C. Goswamy.
10. *Panini's Siksha.*

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